A Task Concurrency Management Design Method

Abstract

A system and method of designing digital system. One aspect of the invention includes a method for designing an essentially digital system, wherein Pareto-based task concurrency optimization is performed. The method uses a system-level description of the functionality and timing of the digital system. The system-level description comprises a plurality of tasks. Task concurrency optimization is performed on said system-level description, thereby obtaining a task concurrency optimized system-level description, including Pareto-like task optimization information. The essentially digital system is designed based on said task concurrency optimized system-level description. In one embodiment of the invention, the description is includes a "grey-box" description of the essentially digital system.